

Ifeanyi, F. and G. Edu. GSU. Further characterization of the major cyanogen bromide fragment of alpha-A crystallin.—The specific interaction between alpha crystallin and the lens plasma membrane has been suggested as a possible mechanism by which the crystallins help maintain lens transparency and homeostasis. In an effort to understand the molecular nature of this interaction, bovine alpha crystallin was digested with cyanogen bromide, and the major fragment (CB-1) was purified by high performance liquid chromatography (HPLC). Characterization of CB-1 by Edman degradation and antisera to synthetic peptides showed that this fragment originated from alpha-A-crystallin but lacked the N-terminal methionine and the last 35 amino acid residues from the C-terminus. CB-1 did not reaggregate into the high molecular weight oligomeric complexes characteristic of intact alpha-A chain.

Jones, C. M. and H. E. Hunt. LTU. Foraging habitat of red-cockaded woodpeckers on D'Arbonne National Wildlife Refuge, Louisiana.—Previous red-cockaded woodpecker (RCW) foraging studies have shown that RCW foraging requirements differ by geographic locality. In North Louisiana, RCWs foraged almost exclusively on pine trees (90% use, 64% availability) compared to hardwoods (6.9% use, 36% available). Trees with large diameters (40 to 60 cm) received the most foraging time ($P=.01$). RCW also foraged in pine trees greater than 17 meters ($P=.01$). Stand use increased with stand age ($P<.05$). As hardwood dominance increased, stand use decreased ($P<.0030$). Tree selection varied according to season ($P=.05$). Knowledge of RCW foraging habitat needs will allow better evaluation of refuge management practices.

Kendrick, I. D., M. Q. McHenry, J. M. Wakeman, and R. L. Seaman. LTU. Startle response in fish.—The startle response in fish is of great interest in neurobiology because it is among the fastest responses in nature and is associated with two large, easily studied neurons, the Mauthner cells. The purpose of the study was to determine the latent period in milliseconds between auditory stimulation and the startle response of fathead minnows (*Pimephales promelas*) and mosquito fish (*Gambusia affinis*). Comparisons were made between different frequencies of sound and different sound intensities. Fathead minnows were found to respond to frequencies up to 900 Hz with a latent period of 8 to 14 ms. The fish responded to lower intensities at 200 Hz than at the other frequencies tested indicating that this may represent an optimal frequency for sound-elicited startle responses.

Knesel, J. A., J. Zhang, and P. W. Ferguson. NLU. Effects of 60-day postpartum lead exposure on the estrous cycle of the rat.—Female neonatal Sprague-Dawley rats were exposed to either 1% lead acetate in drinking water for 60 days postpartum (TRT) or water only (CONT) in groups of five animals each. At 120 days of age, estrous cycles were monitored via vaginal smear for 20 days, overall and individual cycle lengths were calculated, and blood, ovarian and uterine lead levels were determined. Estrous cycle duration was significantly longer in the TRT group (6.7 vs. 4.2 days, with increased diestrus and metestrus). While there were no differences in ovarian or uterine lead levels, blood lead levels remained elevated (90 $\mu\text{g}/\text{dl}$) for 220 days after cessation of treatment. These results indicated a possible deleterious effect of postpartum lead exposure on reproduction in the adult rat.

LeBaron, W. C. and P. R. Ramsey. LTU. N. Kinler and G. Linscombe. LDWF. Effects of copper supplementation on nutria.—Pelt quality of SW Louisiana nutria (8.8 ppm hair Cu) is superior to that of SE nutria (6.4 ppm hair Cu). Two questions were addressed: can low-level supplementation of wild nutria increase hair Cu levels within a six-week feeding trial; do pelts with elevated Cu show enhanced components of pelt quality? After acclimation to a standard pelletized feed, nutria were examined for effects of 2 \times and 4 \times Cu supplementation. Eastern treatment groups showed mean hair Cu (ppm \pm SE) of 8.7 \pm 0.39, 10 \pm 0.55, and 10.7 \pm 1.72, respectively. Results support findings of differences in Cu levels of nutria from the two regions. Pelt variables were evaluated (underfur length, hair color and reflectance, and skin thickness). Further research will include similar feeding trials with zinc. *Funded by Louisiana Department of Wildlife and Fisheries- Fur and Refuge Division.

Lee, J. E., W. J. Liles, and K. M. Tolson. NLU. Surgical experiences with the nine-banded armadillo (*Dasypus novemcinctus*).—Armadillos collected in Corcordia Parish, Louisiana, were transported to Northeast Louisiana University where the surgical procedure was performed. Animals were anesthetized by an I.M. injection of ketamine/acepromazine mixture and/or administration of halothane via inhalation. Although skeletal muscle relaxation was incomplete, the ketamine/acepromazine injection proved to be superior to the halothane because of the ability to precisely regulate the dose. An inguinal lymph node biopsy was performed on the anesthetized animal. The incision was closed with absorbable suture, and the armadillo was allowed to recover for approximately 3 days prior to release. Recaptured armadillos collected 1-3 months post-op showed little indication that a surgical procedure had been performed.

Liu, Y., H. Bounds, L. Baum, and B. Blaylock. NLU. Comparison of incidence rates and stage of diagnosis of five selected cancers in Northeast Louisiana, 1986-1991.—Cancer incidence rate data from the Northeast Louisiana Tumor Registry for lung, colon, breast, cervix, and prostate cancers were compared to the respective national SEER rates. With the exception of lung cancer and cervical cancer, residents of Northeast Louisiana have lower rates than the national average. Age-adjusted incidence rates for each of the 12 parishes in the northeast region were calculated and compared. The distribution of cancer stages (early vs. late) was studied using the Chi-square test. Comparisons between the four test groups (white males, black males, white females, black females) showed that blacks were diagnosed at a later stage of disease than whites.

McPherson, A. B. and B. Lee. CC. A preliminary report on the microfauna from a Late Pleistocene deposit in Louisiana.—Several papers have been published on the fauna from the Tunica Hills of southeastern Louisiana, but there is little material of the microfauna. For several years, we have been screening limestone nodules from the stream bank of Tunica Bayou and treating these with 20% acetic acid to dissolve the limestone. From this material, many vertebrate fossils have been recovered. This includes mammalian, avian, reptilian, amphibian and fish material. Many species are extant in that area today, but others are extinct, and their fossils raise interesting questions.

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